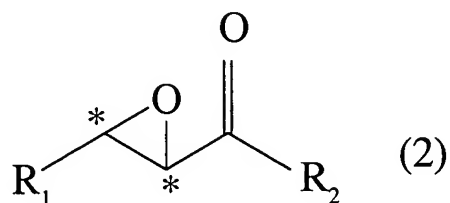


AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

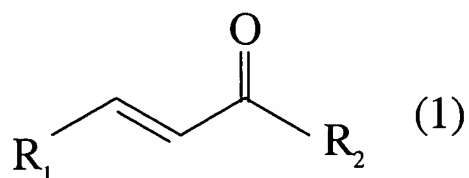
1.-3. Canceled.

4. (Currently Amended) A process for producing an optically active epoxide of the following formula (2):



wherein each of R_1 and R_2 which are independent of each other, is a C_{1-20} linear, branched or cyclic alkyl group, an aromatic group, an aromatic group substituted by from 1 to 5 C_{1-5} alkyl groups, an aromatic group substituted by from 1 to 5 C_{1-5} alkoxy groups, an aromatic group substituted by from 1 to 5 halogen atoms, a C_{1-5} linear, branched or cyclic alkyl group substituted by an aromatic group, or a C_{1-5} linear, branched or cyclic alkyl group substituted by a halogenated aromatic group, and symbol * represents optically active carbon,

which comprises reacting an enone of the following formula (1)



wherein R_1 and R_2 are as defined above, with an oxidizing agent in the presence of a
complex catalyst produced by a process comprising the steps of

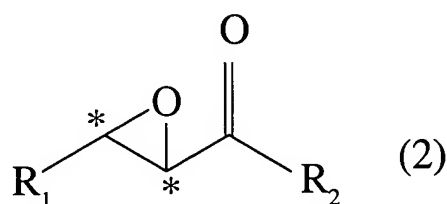
(1) adding to a solvent (A) an optically active binaphthol, (B) lanthanum triisopropoxide, (C) triphenylphosphine oxide, and (D) cumene hydroperoxide or tert-butyl hydroperoxide present in an amount of from 1 to 10 mols per mol of (B) lanthanum triisopropoxide to form a solution and

(2) reacting the solution of step (1) until a complex catalyst is formed and dissolved as indicated by a yellow-green to green color.

5. (Previously Presented) The process for producing an optically active epoxide according to Claim 4, wherein the reaction is carried out by adding the enone to a catalyst solution and then supplying cumene hydroperoxide or tert-butyl hydroperoxide thereto.

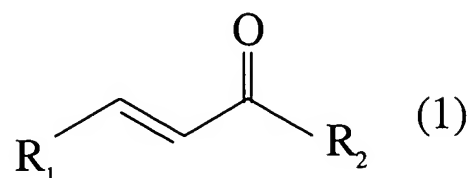
6. (Previously Presented) The process for producing an optically active epoxide according to Claim 4, wherein the reaction is carried out by supplying a mixture comprising the enone and cumene hydroperoxide or tert-butyl hydroperoxide to a catalyst solution.

7. (Currently Amended) A process for producing an optically active epoxide of the following formula (2)



wherein each of R_1 and R_2 which are independent of each other, is a C_{1-20} linear, branched or cyclic alkyl group, an aromatic group, an aromatic group substituted by from 1 to 5 C_{1-5} alkyl groups, an aromatic group substituted by from 1 to 5 C_{1-5} alkoxy groups, an aromatic group substituted by from 1 to 5 halogen atoms, a C_{1-5} linear, branched or cyclic alkyl group substituted by an aromatic group, or a C_{1-5} linear, branched or cyclic alkyl group substituted by a

halogenated aromatic group, and symbol * represents optically active carbon, which comprises reacting an enone of the following formula (1):



wherein R₁ and R₂ are as defined above, with an oxidizing agent in the presence of a catalyst produced by a process comprising the steps of

(1) adding to a solvent: (A) an optically active binaphthol, (B) lanthanum triisopropoxide, and (C) tri (4-fluorophenyl) phosphine oxide, tri (4-chlorophenyl) phosphine oxide or tri (4-trifluoromethylphenyl) phosphine oxide to form a solution and

(2) reacting the solution of step (1) until a complex catalyst is formed and dissolved as indicated by a yellow-green to green color..